Fieldbus Adapter with DC-Drives
DCS 400, DCS 500B, DCS 600

MODBUS Adapter Module
NMBA-01
**Contents of the package**

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc</td>
<td>MODBUS Adapter Module, Type NMBA-01</td>
</tr>
<tr>
<td>2 pcs</td>
<td>Fibre optic cables (2m) for connecting the adapter to the drive</td>
</tr>
<tr>
<td>1 pc</td>
<td>Fieldbus adapter with DC-Drives (this document)</td>
</tr>
</tbody>
</table>

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**STOP!**

Take into account the Safety Instructions in the appropriate documentations!

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**Related Documentation**

There are two parts of documentation.

- Fieldbus Specific Documentation
- Drive Specific Documentation

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**Fieldbus specific documentation**

Description of the fieldbus adapter.

Please see also the chapter “Specific hints for the operation with DC-Drives” of this document.

- *Installation and Start-up Guide*
  - Modbus Adapter Module
  - NMBA-01
    - 3AFY58919772 Rev. B

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**Drive specific documentation**

Description of available fieldbus adapters concerning DCS 400, DCS 500 or DCS 600.

- **DCS 400**
  - Manual
    - 3ADW 000 095 R0701
- **DCS 500**
  - Description of the drive-specific serial link connection
    - 3ADW 000 086 R0201
- **DCS 600**
  - Description of the drive-specific serial link connection
    - 3ADW 000 097 R0101 incl. updates.

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**Internet**

The documentation is available via internet:

[www.abb.com/dc](http://www.abb.com/dc), further please select:

- **Drives**
  - **DC Drives**
    - **Standard Drives** for DCS400 or
    - **Industrial Drives** for DCS500 and DCS600
  - **Options** (tap)
    - under chapter **Serial communication** please find
  - **Further documentations**, which are linked with the relevant documents
### Adapter Connection

For more detail please see the documentation “Installation and Start-up Guide  Modbus Adapter Module  NMBA-01”

<table>
<thead>
<tr>
<th>X2:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D(P) =B Data Positive (Conductor 1 in twisted pair)</td>
</tr>
<tr>
<td>2</td>
<td>D(N) =A Data Negative (Conductor 2 in twisted pair)</td>
</tr>
<tr>
<td>3</td>
<td>DG Data Ground</td>
</tr>
<tr>
<td>4</td>
<td>SHF Cable screen AC earthing (via an RC filter)</td>
</tr>
<tr>
<td>5</td>
<td>SH Cable screen earthing (directly earthed)</td>
</tr>
<tr>
<td>6</td>
<td>0V Power supply for the module</td>
</tr>
<tr>
<td>7</td>
<td>+24V screened cable</td>
</tr>
<tr>
<td>8</td>
<td>PE Earth</td>
</tr>
</tbody>
</table>

### Specific hints for the operation with DC-Drives

The following table relates to the “Installation and Start-up Guide”, which is indicated in chapter “Related documentation” of this document.

The column Page shows the page number of the documentation "Installation and Start-up Guide".

<table>
<thead>
<tr>
<th>Page</th>
<th>Rem.</th>
</tr>
</thead>
</table>
| 2-2  | Compatibility  
• also compatible for DCS 400 and DCS 600 |
|      | Delivery Check  
( different content for DC-Drives)  
The option package for the NMBA-01 MODBUS Adapter Module contains:  
• MODBUS Adapter Module, Type NMBA-01  
• Two pieces of fibre optic cables (2m) for connecting the adapter to the drive  
• This document : „Fieldbus adapter with DC-Drives“ |
| 4-3  | NMBA-01 Connections  
Fibre optic link connecting the NMBA-01 to the drive.  
DCS 400 : Fibre optic link connector V800 on the SDCS-CON-3(A) board  
DCS 500 : Fibre optic link connector V260 on the SDCS-CON-2 board  
DCS 600 : Fibre optic link connector CH0 on the AMC-DC Classic board |
| 5-2  | Table 5-1 The NMBA-01 configuration parameters  
(and the description after this tabel)  
Fieldbus Par.No. : 1 MODULE TYPE  
DCS 400 : Select "Fieldbus" in parameter 8.01  
When a fieldbus communication is selected the character string „Fieldbus“ is displayed.  
DCS 500 : Select "Fieldbus" in parameter 40.01  
After initialisation the string NMBA-01 Vx.x instead of "Fieldbus" can be read by using the CDP312 panel.  
DCS 600 : Select "Fieldbus" in parameter 98.02. This selection will open the fieldbus group 51. After the initialisation the string NMBA-01 Vx.x can be read in 51.01. |
| A-1  | DDCS Link  
Compatible Devices  
• also compatible for DCS 400 and DCS 600 |